

REMARKS

The Examiner's attention to the present application is noted with appreciation.

In the first section of the Office Action dated October 13, 2006, the Examiner rejected claims 1-8 and 10-21 under 35 U.S.C § 112 stating that there was no basis for the limitation of "pure" metal hydrides. Independent claims 1, 18 and 21 have been amended to remove the word "pure" for the more specific "non-adducted", as have been claims 10 and 19. That Applicant's invention is directed to non-adducted metal hydrides is inherent in the disclosure and figures, particularly Fig. 4 and page 5, lines 20-25, and one of ordinary skill in the art would so read and understand the disclosure. Therefore, the independent claims as amended are definite and do not claim new matter. Claims 2 through 8, 10 through 17 depend on claim 1, and claims 19 and 20 depend on claim 18. Therefore, claims 1-8 and 10-21 are now in condition for allowance.

The Examiner provisionally rejected claims 1-21 on the ground of nonstatutory obviousness-type double patenting over claims 14 and 5-8 of Sheridan et al. (U.S. Patent Application No. 10/923,865). In order to expedite allowance of the application, Applicants are willing at the appropriate juncture to submit a terminal disclaimer to obviate the rejection. The Examiner has noted this in the instant Office Action.

The Examiner rejected claims 1-8 and 10-21 under 35 U.S.C. § 102(b) as being anticipated by or in the alternative under 35 U.S.C. § 103(a) as obvious over Danen et al. (U.S. Patent No. 5,266,132; "Danen"). Independent claims 1, 18 and 21 have been amended to clarify that the invention employs non-adducted metal hydrides, which invention Danen does not disclose but rather teaches away from.

Applicant's invention as claimed teaches how to generate an energetic material composition that produces hydrogen gas as a reaction product by the inclusion of metal hydride reactants, utilizing metal hydrides and/or metals with hydrogen interstitials. Danen does not disclose a true hydride, but rather only a hydride combined with another compound to form an adduct. Hydrides and metals with interstitial hydrogen are fundamentally different than what is described in Danen. The Examiner states that "Danen teaches that the reacting materials may include aluminum, titanium, magnesium, lithium and hydrides

thereof," but the only reference to metal hydrides in Danen is the mention of an $\text{AlH}_3 \cdot \text{N}(\text{CH}_3)_3$ organometallic adduct (col. 5, lines 9-44). An adduct, as known in the art, is a combination of two or more independently stable compounds. This, or any, adduct is not a non-adducted hydride and thereby generates a number of undesired byproducts upon ignition. Accordingly, Danen actually teaches away from the use of non-adducted metal hydrides or metals with interstitial hydrogen. Therefore, Danen does not anticipate Applicant's invention and does not suggest but rather teaches away from Applicant's invention. Accordingly, claims 1, 18, and 21 are patentable over Danen.

Because claims 2-8 and 10-17 are dependent on patentable independent claim 1, and claims 19-20 are dependent on patentable independent claim 18, all the claims are now in condition for allowance.

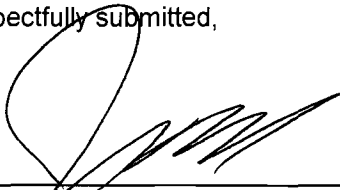
In view of the above amendments and remarks, it is respectfully submitted that all grounds of rejection and objection have been traversed. It is believed that the case is now in condition for allowance and same is respectfully requested.

If any issues remain, or if the Examiner believes that prosecution of this application might be expedited by discussion of the issues, the Examiner is cordially invited to telephone the undersigned attorney for Applicant at the telephone number listed below.

Authorization is given to charge payment of any additional fees required, or credit any overpayment, to Deposit Acct. 13-4213.

Respectfully submitted,

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